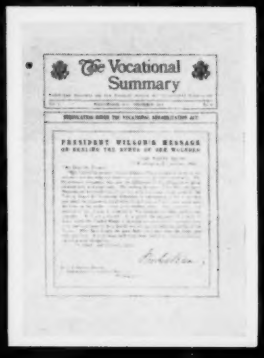
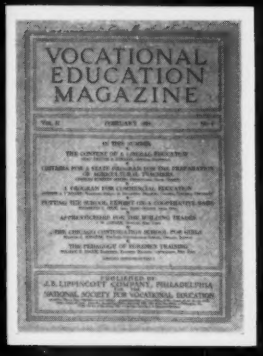
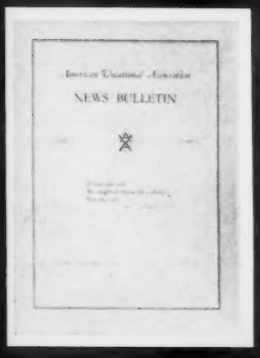
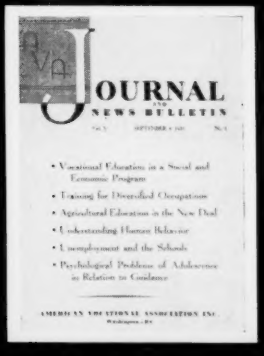
american VOCATIONAL journal

JANUARY 1961





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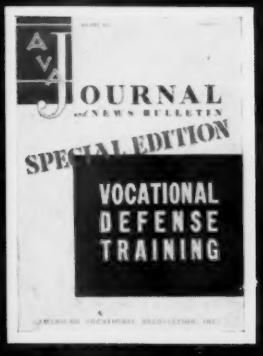

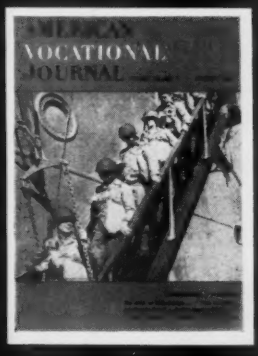

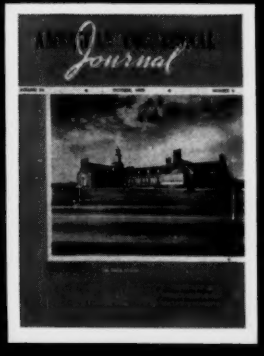

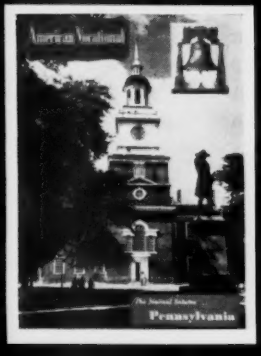

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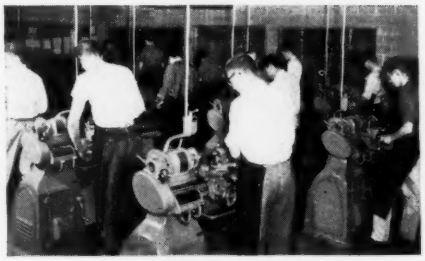

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HERE AND THERE

The annual convention of the California Industrial Education Association—Southern Section will be held January 20 and 21 at Cerritos College in Norwalk, California. The convention theme is "A Program For Discriminating Educators."

●

On December 1, A. June Bricker joined the headquarters staff of the American Home Economics Association in Washington, D. C., as the Association's executive secretary. She succeeded Mildred Horton, executive secretary since 1947. Miss Bricker is a graduate of Battle Creek College and holds an M. A. degree as well as her Ph.D. from New York University.

Miss Horton served as executive secretary during the period of the Association's greatest growth and expansion of influence The membership total when she came in 1947 was less than 18,000; it has now grown to almost 26,000. She will continue to serve the Association as an interested and active member and as bursar of the Future Homemakers of America.

●

Wayne State University's College of Education and Graduate Division again has approved credit arrangements for the 14th Annual European Travel Study Program in Comparative Education. Personally directed by Dr. William Reitz, Professor of Education, the group will leave Detroit June 24 and return September 1, 1961. Visiting 13 countries during the 10 weeks journey the program is designed to provide teachers, students, and other pofessional people with opportunities to survey selected highlights of the life and culture of Western Europe. There are approximately 425 alumni of past programs. Further information may be obtained from Dr. Reitz, College of Education, Wayne State University, Detroit 2, Michigan.

●

A carbide tipped door-lip shaper cutter especially designed for long wear in cutting today's plywoods, which contain phenolic resin-type binding agents that quickly dull high-speed steel cutters, has been introduced by Delta Power Tool Division. Rockwell Manufacturing Company. Delta claims the new cutter, with tungsten carbide tips will cut accurately and smoothly for a longer period than ordinary high-speed steel cutters. The cutter is available in two models: one for clockwise rotation with left-to-right feed, the other for counter clockwise rotation with right-to-left feed.

●

With sorrow we report the death on November 22 of Arthur P. Twogood of Ames, Iowa. He was Professor of Vocational Education at Iowa State University at the time of his death. Mr. Twogood was a long and faithful working member of AVA and was usually seen at the annual convention. He contributed greatly to Trade and Industrial Education in service training in Iowa.

●

Anna A. Kloss, Senior Supervisor of Home Economics, Women's Trade and Industrial Education, Massachusetts State Department of Education, retired December 1 from the position she held for 42 years. A graduate of Simmons College with graduate work at Radcliffe College and Harvard, Miss Kloss taught for three years in rural schools

and for one year in a city high school. She was appointed to her "retired" position in 1918 and was a leader in the promotion of teacher training for home economics and related fields. A testimonial luncheon was given for Miss Kloss at the Worcester Trade High School. Four hundred persons attended.

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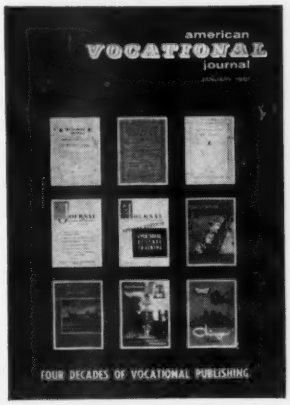

THE COVER: The JOURNAL staff was about four months early in its yearly housecleaning because we wanted to get the new year off to a good start. While going through our files of back issues of the magazine, we had a thought. Why not feature the bit of history covered and created in the pages of the JOURNAL? Hence, a cover was born. And so was the story you'll find on Page 7 of this issue. One sobering thought occurred to us, though: We must strive to the limit of our abilities to continue the fine heritage of vocational education publishing handed down to us over the last four decades.

Latest Word from Washington

January 1961 marks the beginning of the fifty-fifth year that a national professional vocational association has been in existence in the United States.

As we begin a new year, it is well to reflect on the important role vocational education has played in our nation's progress and development. Our country has experienced a phenomenal growth and development -- and vocational education has played no small part.

A TOP RUSSIAN EDUCATOR told one of our leading educators -- not long ago -- that Federal aid for vocational education and for Land-Grant Colleges had caused the United States to develop its economy above that of all countries. It was this foresight of American leaders that has made our economy the most powerful and most productive nation in the world today.

RUSSIA'S KHRUSHCHEV, in his speech to the Economic Club of New York City in September 1959, said among other things, ". . . it was the United States that first challenged all the world; it is the United States that developed its economy above that of all countries." No nation has ever found any substitute for knowledge and skill. Those nations whose people possess the most knowledge and the most skills have developed the highest economy and have enjoyed the highest standard of living.

THE AMERICAN PEOPLE ENJOY THE HIGHEST STANDARD OF LIVING OF ANY PEOPLE, ANYWHERE, ANYTIME. This has come about because we have developed a great education program which includes both general and specialized education. One is not complete without the other. There is no conflict between general and specialized (or vocational) education except in the minds of a few who lack vision and understanding of a total program of education.

FEDERAL FUNDS FOR VOCATIONAL EDUCATION have resulted in stimulating the development of a sound effective program of vocational education in every state and virtually every community throughout the nation. Had it not been for the stimulation created by federal funds, fifty or a hundred years would likely have elapsed with little or no vocational education in some states and in many communities. In recent years, the program has not developed in keeping with needs. This has been due in part to the competition for the education dollar. During the last fifteen years virtually all additional public funds made available for education have gone into the salaries of teachers or into additional facilities. This was necessary in order to keep teachers on the job, but it has resulted in inadequate developments in the field of vocational education -- though we must hasten to add that much progress has been made.

IF THE UNITED STATES IS TO MAINTAIN ITS HIGH STANDARD OF LIVING and is to continue its economic supremacy, we must in the years immediately ahead greatly expand all phases of vocational education.

We are entering a new era in the development of this country. We are confronted with a population explosion. We are witnessing great technological developments. If we are to keep abreast with changes that are occurring and must occur, if we are to remain a strong nation with a high standard of living for all the people, there is greater need than ever before for expanding and improving vocational and practical arts education.

THE DRAIN ON THE U.S. DOLLAR presents serious and threatening economic problems. It is our sincere hope that this problem will not prevent the incoming Administration from carrying out party platforms and promises of presidential candidates as they relate to expanding and improving vocational education programs and facilities.

The Washington Sunday Star of November 20, 1960, carried an article by Herbert Bratter which stated, in his lead paragraph:

> "The United States gold hemorrhage and the balance of payments drain have been a long time a-building and won't be quickly cured. The steps taken by the Eisenhower administration are widely regarded as too little and too late. The problem has been obvious for several years, but its treatment has been delayed. In fact, the administration's foreign aid policies have tended to aggravate the adverse balance of international payments in the period ahead."

In this same issue of The Star an editorial carried the following statement:

> "President Eisenhower last week took drastic and dramatic action to cut spending of dollars abroad and to slow the flow of gold from the United States.
>
> "General Dwight D. Eisenhower, in his Army days, was used to counting his dollars and spending them prudently. After he became President in January, 1953, he quickly built a reputation for being careful about spending the people's money.
>
> "In the later years of his stewardship of the White House, as a matter of fact, he has been a man with a mission -- almost an obsession -- to protect the value of the dollar. He has been the sworn enemy of reckless spending, the unbalanced budget and the like.
>
> "It is ironic, therefore, that in the waning days of his second term, after eight years as President, he and the Nation are facing a difficult, if not desperate, financial situation in which the world's confidence in the American dollar is at stake.
>
> "What is the problem? If this complex situation can be put simply, it is this:
>
> "Nearly 10 straight years of unfavorable balance of payments have reduced gold stocks by more than $6 billion and have put us in a position which, if it continues to worsen, would inevitably lead to a devaluation of the dollar and a major crisis for the United States and probably for the Western world."

WHAT DOES THE BALANCE OF PAYMENTS DRAIN MEAN TO VOCATIONAL EDUCATION? It could mean slowing down the pace of development of this important program. If it does, however, it will only add to our economic problem. One of the important steps that would have influence on the balance of payments drain on a longtime basis would be a more adequate program of vocational education. If we are to compete for the markets of the world and at the same time maintain our high standard of living, we must find ways of increasing production per man. This can come only through proper vocational training so that our workers will possess adequate knowledge and skills to produce more efficiently.

M. D. MOBLEY, Editor-in-Chief and
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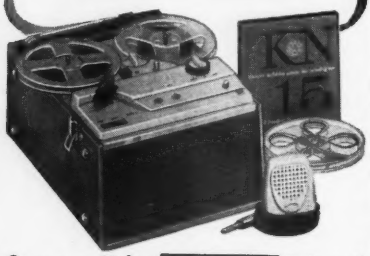

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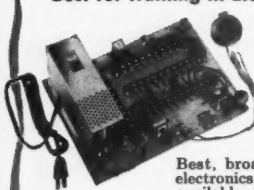

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HERE AND THERE

The number of pupils in America's secondary schools—from Grades 7 through 12—reached an all-time high in the school year 1958-59. And for the first time in modern educational history in this country, the number of male teachers in the public secondary schools exceeded the number of women. These facts emerge from preliminary figures in the latest survey of secondary schools by the U. S. Office of Education. Detailed findings will appear in a new Office of Education publication, *Statistics of Public Secondary Schools 1958-59.*

Already, though, the survey shows this:

1. The number of public secondary students in academic year 1958-59 reached the all-time high of 11,044,119 enrolled in 24,187 schools in 48 States and the District of Columbia. This compares with 7,688,919 pupils in 23,746 schools in the 48 States and the District in 1951-52.

2. The total number of secondary school teachers rose to the all-time high of 485,569 in 1958-59, compared with only 332,106 in 1951-52. This reduced the number of pupils per teacher (the pupil-teacher ratio) to 22.7 as compared with 23.2 in 1952-53.

3. The number of pupils graduating from high school is up sharply, rising to 1,324,553, after remaining virtually stationary since 1937-38 The 1951-52 figure was 1,045,588.

●

The Oakland-San Francisco Bay Section of the California Industrial Education Association will conduct its 6th Annual Industrial Education Institute at the DeAnza High School, Richmond, California, on Saturday, January 21. Demonstration teams from the 11 chapters comprising the Bay Section will present their best teaching techniques and demonstrations.

●

Edgar P. Westmoreland, an AVA Life Member, closed a career of forty-two years as an educator on August 31. Mr. Westmoreland served in many capacities, including service with the U. S. Office of Education as Specialist in War Production Training and with the International Cooperation Administration in Indonesia. For the past 22 years he has been Supervising Director of Trade and Industrial Education in the Public Schools of the District o Columbia. He has been succeeded b Robert J. Volland, formerly Specia Assistant, Department of Industria and Adult Education, in the D. C Schools.

●

A letter from Jack P. Nix, Georgi State Director of Vocational Educa tion, reports that Constitutional Amend ment 15 was unanimously passed (a 1 to 1 vote) by the Georgia electorate o November 8. The amendment author izes the establishment of area school including vocational trade schools, b "any two or more counties, any two o more municipalities, or any county an municipality . . ." The amendmen further provides that the political sub divisions establishing such a schoo shall set up a joint board for admini tration, and that the subdivision is au thorized to levy taxes for the school support "regardless of whether it is lo cated within the teritorial limits o such subdivision."

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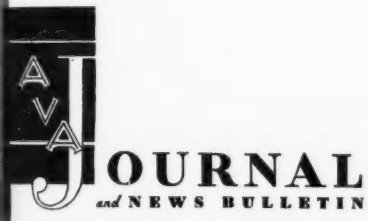
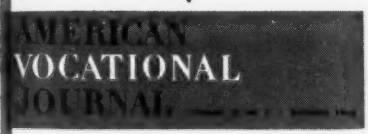
The Heritage of The Journal





How old is the *Journal*?

Well, AVA just completed its 54th Annual Convention. This issue of the magazine starts the 37th volume of publishing. Yet, we stated quite boldly on this month's cover: "Four Decades of Vocational Publishing."

Is the *Journal*, then, fifty-four, thirty-seven, or forty years old? None of them, really.

The Association first held a convention in 1906, although then it was called The National Society for the Promotion of Industrial Education. And this *is* the 37th volume of journals published by this organization, although Volume 1, Number 1 (a 20-page issue published in 1926) went under the name of *The American Vocational Association News Bulletin*. Then how did we arrive at "four decades"?

We'll try to explain.

We have, in the National Office, journals dating back to May, 1918. Those first journals were titled *The Vocational Summary* and were published by the Federal Board for Vocational Education. They were the first real periodicals dealing solely with the vocational education field.

Following close on the *Summary* was the *Vocational Education Magazine*, which, interestingly enough, was printed by the J. B. Lippincott Co., Philadelphia, for the National Society for Vocational Education, one of the forerunners of what we now call the AVA.

In December, 1925, the American Vocational Association was officially organzed, and from that time to this the organization has had a journal—under a variety of names. Some of those logotypes ("trademarks") are illustrated on this page.

The first Association magazine which was called simply by the name you know it today, *American Vocational Journal*, was about the same size and format as this January, 1961, issue. It made its debut in January, 1945 (Volume 20). Incidentally, the cover picture on that first official *AVJ* showed American soldiers debarking from a troopship—a grim reminder that the greatest man-made catastrophe had not yet ended.

As close as we can figure it, 1500 major articles and 12,000 lesser news items have been published in this magazine—whatever the name—since 1918.

And so it's gone down through the years: a number of different groups, magazines, dates, names, and a multitude of great journalistic contributions to vocational education. We who prepare your *Journal* have a rich heritage. Our future responsibilities are staggering by comparison.

Oh yes . . . why "four decades"?

To clearly separate the profusion (and confusion) of names and organizations and journals would be a larger task than space allows. Frankly, we made an approximation and let it go at that.

INDUSTRY SPEAKS

For Vocational Training

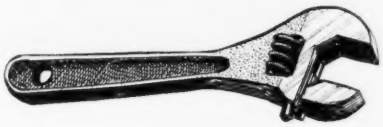
From a talk b
Merrill Moshe
International Smelting and Refining Co
Perth Amboy, N. J

SOME FIFTY years ago when I was a youngster, indu try's craft requirements were small ones. Even thoug the mills were large, maintenance in most cases was take care of by one or two millwrights or handy men. The jack-of-all-trades could fix anything from pulleys to plum ing, and, besides keeping everything oiled, have time le over to build tables and platforms or replace electric bull and brushes in D. C. motors. Machinery was simpl slow-moving and of a few standard types with reasonab tolerances on everything. It was powered from line shaf with miles of belts on shift pulleys for varying speed. Th electrical circuits for both power and light were D. C. wi wiring as open as all outdoors and entirely uncomplicate Major equipment repairs were contracted out and eve town had a machine shop or general repair shop that too on such work.

The development of maintenance craftsmen proceede at a very slow pace in the Twenties and early Thirtie I can recall how the lack of any formal training result in the creation of craft "specialists" who could hand only two or three types of jobs well, but nevertheless eve tually achieved a second or first class rating in their cra For example, Joe Smith could turn in a good job on pum

and blower repairs, so he became a first class machinist on that basis without knowing anything at all about shop work. Bill Jones in the electric shops was tops on lighting circuits, but on crane and casting wheel controls he was a total loss. Still he achieved second class with no great delay. So it went in those days.

How different it is with today's expensive high-speed special-purpose machines performing intricate operations or synchronized with other mechanized operations, often involving hydraulic as well as electric power, together with electronic controls Even the so-called hand tools of the craftsman are now largely mechanized. The millwright



and handyman still have their place, but in the modern plant their function is mostly in the area of routine checking, minor adjustment and lubrication.

Furthermore with present-day huge investments in machines whose functions are interdependent on the production line, a company cannot afford to have repair shutdowns for more than a minimum of time. It is obvious therefore that there must be trained maintenance craftsmen on the job, not only to quickly locate and correct trouble, but to forestall it with effective preventive maintenance. And the need for craftsmen extends over most of the trades since essential auxiliary equipment involves everything from expert carpentry to electronics.

Admitting then the requirement for trained craftsmen, the industrial employer has two choices: to hire them or train them. It may be necessary to hire at first (and there'll be none better to hire than graduates of our vocational schools), but if you seek experienced craftsmen for industrial maintenance, I can tell you, they are hard to come by and easy to lose.

For the best results, a program of apprentice training in vocational school craft courses for craft-minded employees is by far a company's best bet. Such men develop loyalty, gain plant seniority and build themselves into the company's way of doing things while at the same time bettering themselves by becoming journeymen. Such a program of vocational school training can include the following:

1. Complete apprentice program for qualified youngsters for their formal development into graduate craftsmen.
2. An opportunity on the basis of aptitude testing for experienced but untrained helpers to participate and obtain basic trade knowledge with the possibility of further development.
3. Supplementary training for qualified craftsmen to enable them to handle specialized work or to keep them abreast of new developments and methods in their craft.

The economic advantages to an industry in putting such a vocational training program into effect are obvious.

First, the design and construction of modern industrial equipment is highly specialized for adaptation to a particular process or operation. Its care and maintenance must therefore be in the hands of capable craftsmen who understand its functions and components, and such work cannot be contracted for except at great expense.

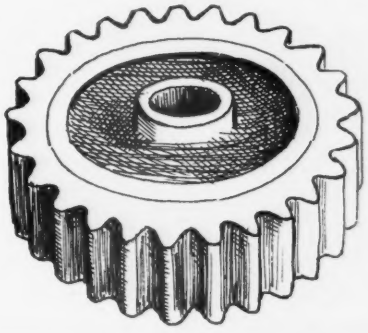
Second, the cost for down-time on present-day expensive machines and equipment is such that qualified maintenance and repair craftsmen must be immediately available to keep it operating or to get it back on the line quickly.

Third, when a piece of new equipment has been installed and put into service a corps of well-trained maintenance craftsmen should be available to check it for possible deficiencies and insure its maximum performance as soon as possible.

Fourth, lack of the requisite knowledge and training on the part of a maintenance or repair man can result in untold damage to a piece of equipment or the product it turns out.

Our company instituted a primitive sort of an apprentice training program as far back as 1937. We had one of the vocational school teachers come to the plant and give the candidates instruction in mathematics, mechanical drawing and blue-print reading, and our shop foremen helped out with on-the-job training. During the war when the school was short-handed, our own engineering department took over the formal instruction. Finally, in 1946, we realized we should turn the whole job over to our vocational school and have it done properly. Courses in the various crafts were arranged and our apprentices were regularly assigned to night school classes with a wage allowance for their hours of attendance.

By 1957 a situation had developed in our shops whereby several apprentice graduates who had become third class journeymen by virtue of their graduation, felt they should automatically be advanced to second or first class. The company was not averse to their advancement, provided their on the job training experience and ability to perform, justified it. The $64,000 question was: how could these qualifications be determined fairly for each individual craftsman?



We set up a joint Management-Union Committee whose deliberations brought the very wise decision to turn to the vocational school for assistance. With help from the Company, complete sets of tests were made up for each craft, and an equitable system of grading devised, so that a graduate apprentice seeking advancement could take the tests for his craft and be given a fair opportunity to achieve his advancement. As part of the plan an oppor-

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From Preceding Page

tunity was also provided for helpers of five years experience in their craft to take the tests and qualify for advancement to third class journeymen when a vacancy was available.

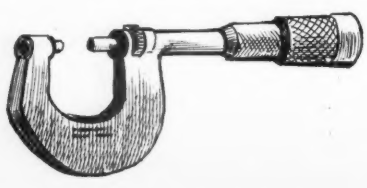
Unfortunately there was a determined resistance for over a year to this advancement testing program among some of the craft journeymen. However, when it was fully realized that the entire program of testing and grading was in the hands of the vocational school staff and that the company would keep faith on the indicated advancements, all dissension disappeared, and the program now functions as planned. Its advantages are obvious. The journeyman's ability is impartially determined and recognized, and the company has an increasing number of loyal, well qualified craftsmen.

I may appear to be a sort of salesman for vocational school training, but this has indeed been a sincere testimonial of one company's experience in utilizing the splendid facilities, services and expert advice which the school and its staff have to offer to industry. I heartily recommend to anyone who has a maintenance craftsman problem.

I wish to add a few observations about the future of our community (Middlesex County, N. J.) and the importance of craftsmen and technicians in the continued expansion of its industry and population.

Our county pipulation will increase by 50% during the 1960 decade, to around 600,000 people. Nearly two-thirds of all business in the county is industrial, and about one-half of our total working force is engaged in it. One employee in every six is a craftsman or technician.

The great opportunity for vocational training graduates in the next decade is, therefore, obvious. By the same token if industry expects to have the craftsmen and technicians it needs, it must take prompt action to promote and sponsor the vocational training of its craft-minded youngsters.



Reprinted from

ILLINOIS VOCATIONAL Progress

February, 1960

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As a general school administrator I have been in the middle of shifting curriculum scenes for many years. This shifting is healthy when it is the product of objective studies of needs of young people and when it is within the elementary principles which have been long established as basic in the preservation and improvement of our form of government and the freedoms guaranteed by our form of government.

The pendulum is swinging too far in the direction of emphasis on course work that is appropriate for some of our young people, in fact essential to produce the leaders needed in science, invention, discovery, and research of many varieties, but which is not appropriate for most of our young people whose lot will be cast in many kinds of supporting roles.

For example, for each graduate engineer there will be need for 10 to 40 engineering assistants, depending upon the nature of the project, who will need careful, semi-technical training, but who do not need and could not master, in many cases, the complete five year engineering program.

The same is true in the fields of health services, food services, manufacturing, agriculture, and distributive services.

When school districts drop or drastically reduce educational programs de-

Pendulum Swinging Too Far?

The Needs of All Youth Should be Met

Hugh S. Bonar
Superintendent, Joliet
Township High School and
Junior College

signed to meet the needs of the great majority of our young people, then it is time general school administrators, who are in a position to know the needs of all youth, protest and call attention to what could be critically essential to the nation's general welfare.

This is not to decry great doses of mathematics and science, for those who can master these advanced courses. Rather, this should be encouraged for perhaps the 15 or 20 per cent who would fit this category. I make a plea to all general school administrators to protect and enhance the educational programs designed to meet the needs of the 80 per cent who will not go into the higher education programs leading to degrees.

Skill Needed

Government and industry surveys have shown the great need for skilled and semi-skilled people. The same surveys have shown the need for semi-professional and semi-technical people in great numbers. Machine operators and maintenance personnel will be needed to keep the machines in operation in the era of automation we are now entering.

Increasingly society yields to the scattering of the family in the age of improved highways, automobiles, and social diversions. If the family unit is to be maintained as an important element in our society, then the educational programs designed to strengthen the home should be maintained and strengthened.

A number of alarms have been sounded warning us of the dangers involved in these extreme swings of the pendulum. Typical of these is the "Rockefeller Report" on Education published last year. In part the report said, "It is now widely recognized that our society has given too little attention to the individual of unusual talent or potentialities. To make such an assertion is not to deplore the unprecedented time and money we have devoted to raising the general level of achievement. It would serve no purpose to replace our neglect of the gifted by neglect of everyone else. We are all too prone to such wild swings of the pendulum in our national life. We must learn to view these matters in a perspective which will permit us to repair one omission without creating others."[1]

Purposes of secondary education as stated by Commissions and professional as well as lay groups from the turn of the century have included the needs of all pupils and the needs of society as these relate to the welfare of our government and our nation. The Cardinal Principles of Secondary Education[2] published in 1918 have become basic in our general purposes of schooling and have not been permanently affected by the temporary pressures of individuals or groups who have become enthusiastic for a season over some curriculum change that would violate one or more of these principles. Two of these cardinal principles are, "(1) vocation, and (2) worthy home membership."

Present day pressures, both within the schools and without, would once more threaten these two basic principles.

Needs Summarized

More recently (1951) the National Association of Secondary School Principals issued a statement in which the imperative needs of all youth were summarized. Once more two needs about which we are especially concerned in this article are stressed. In part the statement read, "All youth need to develop saleable skills and those understandings and attitudes that make the worker an intelligent and productive participant in economic life. To this end, most youth need supervised work experience as well as education in the skills and knowledge of their occupations. All youth need to understand the significance of the family for the individual and society and the conditions conducive to successful family life."[3]

In the chapter, High Schools for Tomorrow, the commission for the Thirty-sixth Yearbook of the American Association of School Administrators, 1958, predicts in part, "The place of technical and vocational education as part of specialized education will be clarified and strengthened. Increased emphasis will be given to technical

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[1] The Pursuit of Excellence and the Future of America, the "Rockefeller Report," on Education, America at Mid-Century Series, 1958, p. 15.

[2] National Education Association, Commission on Reorganization of Secondary Education. Cardinal Principles of Secondary Education. U. S. Department of the Interior, Bureau of Education, Bulletin 1918, No. 35, Washington, D. C. p. 9.

[3] National Association of Secondary School Principals. Planning for American Youth. (Revised edition: original printing, 1944.) Washington, D. C., 1951. p. 9.

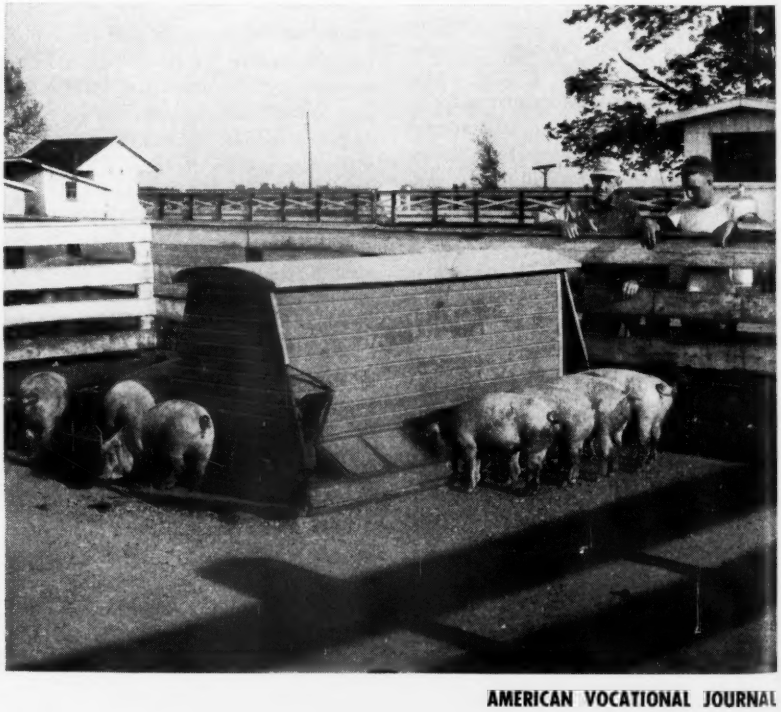
LOOK TO THE YOUNG FARMERS!

The future of farming, hence that of vocational education in agriculture, depends on an adequate program of instruction for young farmers—not solely for high school students. A. L. Yeatts, Jr., Assistant State Supervisor of Vocational Agriculture in Virginia, explores the subject in detail.

An obligation of public education is to provide every individual an opportunity to become the best possible producer of goods and services. Farming today requires certain abilities that cannot be learned or developed in the short period of four years in high school. This has always been true. And we have not been fair to ourselves or to boys enrolled in our high school program if we leave the impression that after four years of vocational agriculture a boy could be a successful farmer. Even if we could thoroughly educate a boy in high school, he would be somewhat at a loss to cope with the situation a few years after leaving high school if his educational process terminated at that time. The agricultural situation today demands a continuous type of training.

Since 1940, a technological revolution has transformed the family farm into the most productive the world has ever seen. Output per man-hour is up more than 80 percent and output per farm is up 74 percent. Better feeds, better breeds of livestock, better seeds, more efficient machines . . . each has made each family farm a potential oasis A dairyman can milk 50 cows and produce 500,000 pounds of milk a year. A beef feeder is able to feed 200 steers in 15 minutes with our most modern mechanical equipment. A hog raiser can rear 1,000 hogs a year and a broiler grower can produce 160,000 broilers per year.

These things didn't "just happen." Only through education has the modern farmer been able to manage an efficient production unit. From one



A vo-ag teacher advises a young hog raiser. Such advice is often needed desperately. Both teachers and farmers can profit from the experience.

source or another he has acquired the ability and know-how to adjust and alter his farm program to meet the competition necessary for staying in the business.

The rapid trend toward intensive mechanization and specialization is naturally having its effect on young farmers. It is forcing some of them to seek nonfarm employment. Others are seeking to expand the size of their farm operations by adding more livestock, purchasing more land, and in many instances by adding new enterprises. Some are shifting from beef cattle and sheep to more intensive enterprises such as commercial laying flocks and swine. The trend toward specialization is expected to continue. And, in turn, specialization will require more training and skill on the farmer's part. Shall we accept the challenge and assume our rightful place in the training of our farmers?

Too many of our rural high schools have never realized their place in, or the importance of, educating those individuals who remain in the community and become a part of it. Schools are too much concerned with educating and training those who will leave the community to reside and work elsewhere.

One high school principal said recently, "We are proud of our program of vocational agriculture in this school. Almost all of the boys who stay in the county were enrolled in vocational agriculture while in high school and are now members of our young farmer class. These men have found their place in the community and are now occupying positions of leadership and are some of our leading citizens." Every community would do well to stop and analyze its responsibility for educating its citizens.

At a national meeting of head state supervisors and head teacher trainers in vocational agriculture held recently in Chicago, a report was adopted which included the following:

"1. Young farmer education should be an integral and definite part of every program of vocational agriculture and a definite part of the local high school. Every program of vocational agriculture, to be completely adequate, must provide instruction in agriculture for high school classes, young farmer classes, and adult farmer classes.

Beginning teachers can gain confidence in the community by organizing classes for young farmers whose formal schooling is far behind.

"2. School administrators, boards of education, supervisors, and teacher trainers in agricultural education, and teachers of vocational agriculture all have responsibilities in planning and conducting young farmer and adult farmer programs."

Some individuals are even stronger in their beliefs toward young farmer education than the report indicated. One of our leaders who has been recognized nationally for a number of years has said that a program of vocational agriculture could not be justified unless it included training for young farmers.

Let us pursue further the need for young farmer education.

In a follow-up study of all former vocational agriculture students in Virginia, which was completed last year, it was found that 11,610 former students were farming full time. The group with which we should be most concerned consists of persons who left school or graduated since 1945, which numbers 3,863 or 33 percent of the total. These are the young farmers who are now attempting to become established in farming and who have real problems. Then, too, we have to realize there are many of our young farmers who never had vocational agriculture and who need help even more than our former students.

In several counties in Virginia, the number of young farmers enrolled in the young farmer classes exceeds the number of former students now farming in those communities. Teachers are inclined to look for leading young farmers and fail to contact or work with young men on small farms in isolated sections of the community. The latter individual really needs the training. Teachers who are now conducting young farmer classes, as well as those who are not, should carefully study the local situation and visit each individual who should be receiving young farmer instruction.

We must strive to base our instruction on the greatest needs or problems of our class members. For years we have advocated letting young farmer groups share in planning their own program. This is important if we are to have a successful program. Farm people do not always recognize their most pressing needs or problems. A problem today may be the result of lack of attention to some other problem that the farmer had never realized.

We have classes in farm machinery repair when probably the biggest need is for the same class time to be spent in proper machinery maintenance and adjustment. We teach the control of mastitis when perhaps we should teach proper dairy herd management in order to *prevent* mastitis. Through proper guidance and counsel, class mem-

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Action Research

Its Promise and Problems

Sara Blackwell

Department of Home Economics Education
Cornell University

Research concerned with school problems, carried on by school personnel, to improve school practice—this is action research, a concept as American as the main theme of the Declaration of Independence. Action research is relied upon to bring educational practice into close harmony with educational theory, since for most people "seeing is believing" and the results of one"s own experiments make a lasting impression.

Criteria for evaluating action research do not differ substantially from those accepted by the professional research worker:

(1) Research requires identification of a researchable problem. It cannot answer such philosophical questions as, "Should the teacher . . ?" or absolutes such as, "What is the best method for . . ?" But it can be designed to handle the problem, "Will X produce better results than Y," to which the action researcher adds, "in this situation."

(2) Research requires specific operational definitions of generalized concepts. The question, "Will democratic methods of teaching produce better results than authoritarian methods?" cannot be a focus for inquiry until there is agreement about the specific behaviors to be characterized as "democratic" and "authoritarian," and the specific results that are to be considered important.

(3) Research requires careful planning. It takes into account the past experiences of the researchers concerned and the results of previous study by others. If action research is to bridge the gap between theory and practice, perhaps it should concern itself mainly with testing well-defined educational theories in the local situation or hypotheses previously tested under circumstances which the teacher cannot accept as being like his own.

(4) Research workers are expected to follow their plans. Action research permits greater flexibility in planning than is acceptable in a well controlled experiment, but it is assumed that modifications in the plan will be based on thinking that is just as sound as that behind the original planning.

(5) Research requires systematic, painstaking data collection and record keeping. The old saw, "Anything worth doing is worth doing well," is appropriate.

(6) Research must be subjected to checks for validi and reliability. If the data collected bear no rel tionship to the operational definitions so careful set forth or if the measurements taken today a inconsistent with those taken last week, then t researcher is in trouble.

(7) Research requires careful analysis and thoughtf interpretation of the data. Any intelligent adolesce can report the percentage of people who respond to a particular question in a particular way or c calculate the difference in mean test scores betwe two groups of students. The researcher repor these bits of information not for themselves alon but because they help him test the hypothesis wi which he is concerned. He must consider wheth the difference he has obtained is one that is si nificant. Both statistical significance and practic significance enter into his thinking. In action r search, caution is the keyword to interpretatio since emphasis throughout the study has been the uniqueness of the situation rather than up application to many situations.

Action research projects that meet these criteria are n numerous, and it is easy to understand why. How ma teachers and supervisors can be expected to find time f research? We all know that superior teachers approa their teaching with a research point of view. This approa is probably the differentiating factor between the twen years of experience enjoyed by one teacher and the o year's experience repeated twenty times by his uninspir contemporary. Given time in his schedule, the superi teacher would likely receive tremendous stimulation fr experience on an action research team. He might also fi some of the research literature just as stimulating.

To what extent have teachers and supervisors develop competence in handling research techniques? Over a over again, experienced teachers who embark on gradu work in education affirm that evaluation is a major sour of problems in teaching. Yet the quality of the evaluati can make or break a research program. Without adequ measures of progress toward educational goals, who is determine whether Method A is better than Method These measures are yet to be designed in most areas

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THE EXPERIENCE OF WORK

Prerequisites to its success

By
Mary Ellen Oliverio
Teachers College
Columbia University
New York

Work experience programs are not a panacea to the ills of our educational curriculum.

There was a time when many believed that work experience would solve the problems developed from lack of motivation and from unrealistic training. Work experience like other facets of the school curriculum must be closely allied with the total school philosophy if it is to have vitality and value to students.

The prerequisites discussed in the following paragraphs are important for a successful work experience program irrespective of the department in the school that is sponsoring it. However, the business education department is my primary interest here.

Prerequisite 1. The school administration and the total faculty understand the objectives of the work experience program and are supporters of the program. A program which is not enthusiastically supported by the faculty is not going to be a strong program. The faculty must believe in the merits of a combination of work and study for certain students in the high school. There will be times when adjustments must be made in the school program. These adjustments cannot be made if the administrators and teachers are not aware of the purposes and objectives of the program.

Prerequisite 2. The objectives of the program are educational in nature. The mere fact that a work experience program may keep some students in school longer is not sufficient justification for the program. Young people need to learn skills, habits, attitudes, and the work experience program should provide these. The basic philosophy of the program must have as its foundation the truly educational nature of the undertaking. Dewey talked of "learning by doing." That is exactly what students are accomplishing if the "doing" has been identified as pushing forward the areas of understanding and knowledge. The role of work in the culture must be made meaningful.

Prerequisite 3. The teacher-coordinator visualizes the objectives broadly. A work experience program provides an orientation to the world of work. The youngster who has learned typewriting and shorthand in school and then takes a job where the emphasis is on those skills may not learn much more than the teacher could have taught in school. If students are going to do routine tasks, under incidental conditions, it is better to keep them in school. The teacher-coordinator should be sensitive to the many values to be derived from the experience and should direct the learning so that students realize the many objectives.

Prerequisite 4. The school curriculum is flexible so students in the work experience program can participate fully in all of the school's activities. Students who are in the work experience program should not be deprived of the other meaningful activities sponsored by the school. The class play, the yearbook, the athletic teams, should be phases of the school program in which all students are able to participate. The program should be flexible so as to allow the working students an opportunity to take classes with other students. The block schedule, under which the students in the work experience program have their history, English, and mathematics by themselves, is undesirable.

Prerequisite 5. Parents thoroughly understand the purposes of the program for their children. It is always best for the parents to be well acquainted with what the school has undertaken. They should be invited to the school to learn about the program. An open forum where the plan is discussed with representatives from business, with former students. the parents and the teachers is a valuable means of communicating with the community. Printed announcements can be sent to parents so they will understand the new undertaking. The

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Experience of Work

From Preceding Page

parents ought to know what their children will be expected to accomplish. The hours the students are working should be clearly understood by parents.

Prerequisite 6. The teacher-coordinator makes careful plans with cooperating companies so that there is thorough understanding of the undertaking. Companies must understand that students are to be in productive positions. The terms of the agreement need to be clearly stated. This is not a plan for cheap labor, it is not a plan of donating the salary of a beginner to a high school student, the student is not to be a guest in the company. The student is to be responsible for the accomplishing of real business tasks. The objectives of the program and the manner in which the companies are to participate must be clearly understood.

Prerequisite 7. The businesses providing work opportunities are carefully selected as places where students will get constructive types of experience. What constructive experience means will differ from youngster to youngster. Herein lies a very important responsibility for the teacher. The policies of companies differ greatly. It is important that students be in situations where the incentive to excel is present. Students should be in offices where the supervisor has high standards, where regular hours are adhered to and where the people with whom the student is associated are interested in aiding a newcomer. In short, the environment should be a wholesome one for the neophyte.

Prerequisite 8. Students are provided with a thorough orientation to work in the modern business community. An attempt is made in sociology, in business courses, and through other experiences to help students become acquainted with modern business. Early in the high school career students should learn of the major occupational fields in the American culture. Students should develop some awareness of the interrelation of various types of jobs and tasks. Every course in the school can assist in this orientation — home economics should help the young student learn what she should wear, English should help the student talk easily and with poise when with others, history should teach the student something about the great technological developments in American businesses and the various ways Americans have earned their living over the ages.

Prerequisite 9. The teacher has some independent check on the effectiveness of the student in the work situation. The evaluations will be based on so many different phases that it is important that the teacher have some means of determining success. The supervisor in the business office should assist in an evaluation of the student. However, it is important that the teacher have some way to determine how successfully the student has done the job. She can learn this through many ways. If rapport is established with the student, the teacher will learn much from him. The teacher should visit the student, see samples of his work, get some measure of production, and learn what measures are kept of accomplishment in the office.

MEMBERSHIP

As of November 1, 1960, AVA's membership totalled 30,565 including both Canadian and foreign members. Those states and territories in the 90 to 100 per cent category, according to participation potential, are as follows:

1. District of Columbia
2. Virgin Islands
3. Illinois
4. Wyoming
5. Alabama
6. New Jersey
7. Georgia
8. West Virginia
9. Wisconsin
10. Nebraska
11. Oklahoma
12. North Dakota

Alaska is the only state not represented on AVA membership rolls. States with the highest numerical ranking are:

1. Illinois	2196
2. North Carolina	1422
3. Georgia	1367
4. Texas	1234
5. Wisconsin	1202

Prerequisite 10. The teacher provides direction for the experience on the job by aiding the students in developing awareness of the human relationships, the production standards, and the range of responsibility evident in a company. The teacher acts as an interpreter of what is happening in the office situation. Students will come to her for evaluations of their decisions, and the teacher should be a good listener. This prerequisite is often cited as one of the basic values of a work experience program that is under the auspices of the school. The teacher is able to help the student reflect on his experiences. Few students can generalize from their work experience without the aid of an adult.

Prerequisite 11. The teacher is fully aware of what is happening on the jobs and is able to integrate the work experience with classroom learnings. Through an independent check the teacher learns much about a student and can raise questions like these: What skills do you need? Do you realize now what you should have known that you didn't know? Why were your transcripts unacceptable? The answers to these questions will provide much content for classes in the business education department.

Prerequisite 12. Careful attention is given to the development of self-evaluation on the part of the student workers. Possibly, there is no more difficult worker than one who is totally unaware of his own deficiencies. The teacher can help students evaluate themselves in their work situations through requesting that they keep a diary account of their reactions to the persons in the office, of their feeling when they are asked to retype a letter, etc.

Prerequisite 13. The teacher-coordinator is allowed sufficient time to visit students, to talk with them in personal conferences, and to talk with their work supervisors. This is somewhat related to the first prerequisite listed. The teacher-coordinator is not free when her classes are over. Working with individuals in a number of different job locations takes a great deal of time. The conscientious teacher-coordinator will find many hours are required to do a good job. The teacher must have an office where she can meet students and supervisors for private conferences.

Prerequisite 14. The teacher-coordinator evaluates the total program periodically to determine the extent to which objectives are met. "What is the program accomplishing?" should be an ever present question in the minds of the teachers. We don't continue something once it has begun merely to be continuing it. Without too much difficulty, one could

Please turn to Page 24

A handy device in teaching

beginners the art of salesmanship is the

PRODUCT ANALYSIS POCKET CARD

by

Eugene L. Dorr
State Supervisor, Distributive Education
Phoenix, Arizona

AT THE BEGINNING of a school year a coordinator has many things to do to get his students ready for and performing satisfactorily on the job. One major area of instruction involves helping students become orientated to their selling responsibilities as quickly as possible.

Business people and coordinators know the real value of salespeople who possess ready and usable sales facts about merchandise. Long, involved product analysis, however, takes far too much time in relation to selling value for beginning distributive education students. The development of brief merchandise information cards for many articles insures quick and sound sales results.

POCKET CARD product analysis incorporates a study of merchandise with selling techniques. The plan includes use of a pocket-size reference card and a series of assignments that emphasize necessary facts for immediate use on the job.

Students are given a product analysis card early in their new jobs, with instructions to select the "big" seller in their department or store. They are asked to jot down on the outside cover the five main selling features of the article. Students immediately start learning how to obtain merchandise information. They ask fellow salespeople, company representatives who might be in the store, and buyers about the merchandise.

By reading labels, tags and point-of-purchase display cards they soon gather major features and selling benefits.

Through reading ads, consulting catalogs, using the product themselves or talking to satisfied customers they acquire other product information. These facts are then narrowed down to the five most important selling features, price excluded.

THE NEXT STEP in fulfilling the assignment is to complete the inside portion of the card. Here the student must spell out an actual sentence or two on how they will give the customer a sales message for each particular feature of the product. Developing selling sentences that are positive and descriptive takes time and effort. Experimentation is the necessary learning tool that comes into play. Practice is important, so plan at least one card a week as an outside assignment for the first twelve weeks after the student starts on the job.

Don't worry about the student who is not selling. Through his contact with the merchandise he will develop ideas for a sales presentation. Efforts of the

Please turn Page

POCKET CARD
From Preceding Page

non-selling student to develop sales information will put him in good stead with other members of the store personnel and may lead to earlier sales opportunities.

Students will need help in knowing what makes a major selling feature and how to develop selling sentences.

A FEW LESSONS and examples of good salesmanship will be of interest at this time. Knowing why people buy and what makes up consumer benefits will help create the proper frame of mind for our new salesperson. The value to the student, the store and the DE program through increased sales will be difficult to estimate—but you will sense it.

Complete follow-through on this assignment calls for the coordinator to test the student on the job by asking for a sales demonstration in the store when making regular visits. The student demonstration can be accomplished quickly when business activity is quiet. It affords the coordinator an opportunity to evaluate how much merchandise information his students really need to perform successfully on the job. Poor performance on the job when classroom activity has been part of the learning cycle might mean a student is not making the necessary application on the job. Perhaps the student who writes a good sales presentation fails to deliver the message to customers. Here is a way you can evaluate the student's pre-approach training and sales ability with the same assignment.

ADDITIONAL CARDS should be completed for other products. Work on product analysis cards should be continued until your students show real adaptability in developing merchandise information into selling knowledge. Keep students working on items that are going well. This will add enthusiasm to the assignment because the opportunity to use the information will undoubtedly present itself often.

A product analysis card is shown here as an example of the type of card which can be developed to record the information for the merchandise illustrated. Notice how the terminology spells out the outstanding features. The selling sentences give positive consumer benefits for each feature. Knowing five excellent features about a given piece of merchandise spells confidence for your distributive education students. Confidence, a necessary quality for success, will create more sales volume and better training opportunities for your students.

Adult salespeople will show great interest in this selling lesson. Older salespeople will be stimulated to help the students create top selling sentences on really sound product features. They may even ask for additional cards so that they may try it.

PRACTICE on a good technique makes for perfection. Don't forget to keep your students selling-feature conscious throughout the school year. Occasional repeat demonstrations of this method will keep selling knowledge and selling results razor sharp.

> **EXECUTIVE DECISION**
>
> The fine art of executive decision consists in not deciding questions that are not now pertinent, in not deciding prematurely, in not making decisions that cannot be made effective, and in not making decisions that others should make.
>
> —Chester I. Bernard

FRONT

YOUR REMINDER
for
BETTER SELLING

Specific Subject: Brand Name Ironing Table

MAJOR FEATURES

1. Knee-space Chromed Legs
2. Finger-tip Adjustable Height
3. All-steel 60% Ventilated Top
4. Steam Escape
5. Floor protection and easily stored.

"ASK FOR THE ORDER"

CENTER

SELLING BENEFITS

1. Chrome-plated tubular legs are curved so knees can slide way under. Ironing surface is right over your lap for comfortable sit-down ironing without reaching.
2. Finger-tip height adjustment from 23 to 36 inches. Iron sitting or standing and select your own comfort level.
3. Expanded steel top is 60% ventilated. You'll iron much faster and easier on this than you would on perforated tops which are only 3% ventilated.
4. Steam can escape immediately, so pad and cover do not collect moisture. This makes a dryer ironing surface that requires less ironing heat. You can iron faster, less effort and less danger of scorching.
5. Non-slip, non-marking rubber tips protect floor. Folds flat for compact storage. Pad and cover stay clean, never touch the floor.

The Ohio Vocational Association has purchased a print of the AVA film *Progress and Promise.* A letter recently sent out by Ralph J. Woodin, Executive Secretary of the Ohio group, has this to say about the film:

"We purchased the film for two reasons. First, we believed that it would be a useful tool for stimulating membership of teachers in the field and of showing present members the value of their professional organizations. Secondly, we believe the picture represents an excellent way of acquainting future teachers . . . with the scope of the program . . ."

The Ohio Association is hereby commended for their reasoning—and for their promotional efforts on behalf of the vocational education industry.

●

Many highly technical aspects of graphic arts production are made clear and easily understandable in the new motion picture *Craftsmanship and Automation.* Produced by R. R. Donnelly & Sons of Chicago, the film depicts the details of printing and binding an encyclopedia. The 22-minute movie (sound, full color) is available from the Donnelly organization, Merchandise Mart Plaza, Chicago 54.

●

Overview, the educational executive's magazine, will devote a portion of its February issue to an article by Mark Nichols and Dr. H. H. London. The article will be about Russian education. *Journal* readers will remember the excellent interview story carried in the October issue (reprinted from *U. S. News and World Report*) following Mr. Nichols' and Dr. London's trip to the USSR.

Action Research

From Page 14

vocational education. In home economics, at least, few of the professional research workers and full-time graduate students have come up with evaluation instruments of high quality. Have we any right to expect the classroom teacher to solve the measurement problems that baffle the experts?

Hodgkinson, in the *Journal of Educational Sociology* for December 1957, has presented a critique of action research which includes discussion of the movement in its historical and cultural setting, the case for and against it with regard to both theory and method, and an extensive bibliography. In the 1959 *Yearbook* of the Association for Supervision and Curriculum Development, Shumsky provides a chapter entitled, "Learning About Learning From Action Research," in which he emphasizes the personal implications of action research for the teacher as a force for "bringing learning alive in the classroom." Corman in the *Review of Educational Research* of December 1957, attempts an evaluation of action research as a contribution to research methodology or to the in-service education of teachers. These and other recent discussions of action research are worthy of consideration by those who are about to engage in it.

An interesting study yet to be made is a follow-up of action research participants several years later. Action research is assumed to be an instrument for improving educational practice and a more potent instrument than professional research. Common sense supports this assumption. Educational theory supports it. The empirical evidence is sparse

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NOTICE

RESTATEMENT OF DISTRIBUTION POLICY CHANGE

Contrary to policies in previous years, copies of The American Vocational Journal are mailed directly to students rather than in bulk to the person soliciting student memberships. This policy change became effective with the September, 1960 issue

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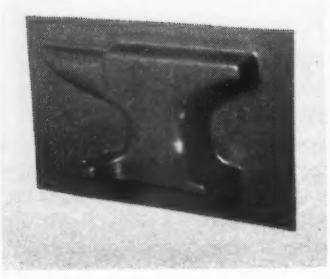


PLASTICS IN INDUSTRIAL ARTS

Ira H. Johnson
Mankato State College
Mankato, Minn.

Ronald L. Anderson
Elkton High School
Elkton, Minn.

NO ONE WILL deny the fantastic and increasing importance of plastics in industry and everyday living. The teaching of plastics in industrial arts, however, can best be described as mediocre. This paradoxical situation exists because teachers of industrial arts, except in isolated instances, have neglected many of the important facets of the plastics industry. For example, how many industrial arts departments offer experiences in vacuum forming, in injection molding, in epoxy resins, or in the industrial approach to fibreglass? If plastics in industrial arts ar to be truly effective and representative these and perhaps other areas must b actively included.

It is the main purpose of this artic to describe one method of plastic fab rication: vacuum forming. In thi process, a thermoplastic sheet is place in position over a mold, heated, an the air is then exhausted. After coo ing, a replica of the mold results.

Industry has found uses rangin from display packaging to refrigerato door interiors. Industrial arts, simi larly, can use the process to form nov elties, project parts, foundry pattern and even complete projects.

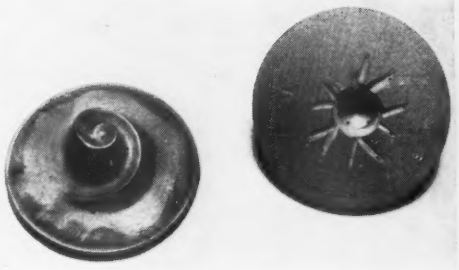
The cost can be low. Successful re search* has shown that shop fabricate equipment is suitable or that commer cial units can be purchased fro $40.00 and up. No matter the cost the process is simple, the related learn ing possibilities tremendous and stu dent interest high.

College workshop students watching a vacuum forming demonstration. Operation of the vacuum euipment shown here is described on the page at the right.

* Wenberg, Ronald M., *Vacuum Formi of Plastics for the High School Shop.* U published Masters Thesis, State Colleg Mankato, Minnesota, 1958.

THE DRAPE FORMING PROCESS

A. A mold—which can be made out of wood, plaster, epoxy resin or aluminum, with or without air evacuation holes like those shown in the photo at right—is placed on top of a diffusing background pad which rests on the perforated worktable.



B. A sheet of thermoplastic material is clamped in a movable frame.

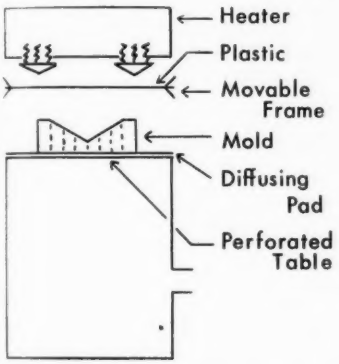


Fig. 1

C. The heater is swung into heating position squarely over the plastic as in Figure 1. When heating, the sheet will first wrinkle or corrugate, then go into a sag, and finally "drum up" or "shrink" to a taut position. Shortly after the plastic reaches this taut condition, commence the draping action.

D. Swing the heater away and start the downward movement of the movable frame toward the worktable, "blanketing" or draping the mold with the softened sheet. Figure 2.

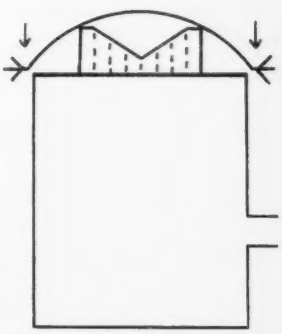


Fig. 2

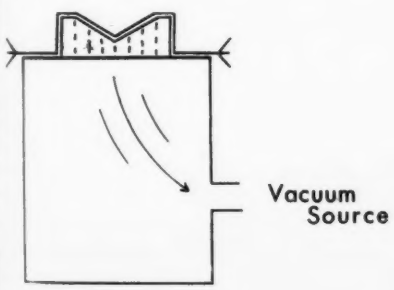


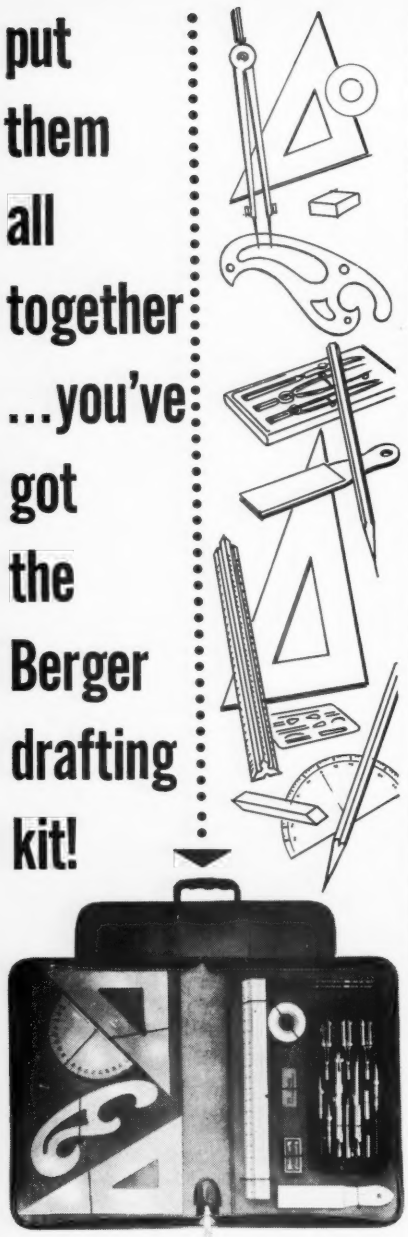
Fig. 3

E. A vacuum is created by exhausting the air from the enclosed area between the sheet and the mold through the perforated worktable and exhaust holes in the mold. The softened plastic sheet is forced tightly against the contours of the mold. Figure 3.

F. After a short cooling period of about 30 seconds, the vacuum source is turned off and the plastic sheet is removed from the movable clamps. If compressed air is available, blow through the air evacuation holes or where mold and plastic join to remove the mold.

G. Trim edges and the vacuum forming is completed.

put them all together ...you've got the Berger drafting kit!



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from the Public Information Committee

State Programs of Public Information Developing. The enthusiasm of 60 officers of state vocational associations, convened at Los Angeles on December 12 by the AVA Committee on Public Information, and the reports they gave of activities in their states gave the Committee the best assurances it has had that state programs of public information are "off the ground." The workshop, conducted by Mrs. Pauline Burbrink, included reports on the use of television in Indiana to provide public information, the work of a full-time public information person for vocational education in the Georgia State Department of Education, and the activities of the AVA Committee on Public Information. The workshop group then divided into three sub-groups. Reports of state activities were heard and plans for future programs of public information were considered.

New Publications of the Public Information Committee. Two new brochures, prepared by the Committee on Public Information, appeared during the AVA convention:

The Case for Agricultural Education in the Public Schools

Vocational Education: Gateway to Opportunity

A third publication is ready for the printer: Vocational and Practical Arts Education in Relation to Economic Well-being.

Reprinted Publications. Three brochures have been reprinted:

Occupational Distribution: A Factor in Educational Planning

New Developments and Their Impacts on Trade and Industrial Education

What is Distributive Education?

Distribution of Publications of the Committee on Public Information. The Committee has found that certain groups other than professional vocational educators want the publications of the Committee and are willing to pay for them. One organization has purchased 5,000 copies and another 1,000 copies of the brochure on distributive education to be sent to their members. This new development calls for a restatement of policies for the distribution of these brochures:

1. All state association presidents and all state directors will be sent copies of new publications.
2. A special list of key persons most likely to be interested in particular publications will be prepared for each publication and copies will be mailed to those on these lists.
3. All individuals requesting copies of publications will be mailed free one copy of each publication requested.
4. State associations will be allowed copies for distribution if they will indicate and justify the uses to be made of them.
5. Local vocational associations and other vocational groups may receive additional free copies if they can justify their use. However, these groups must determine their needs over and above any distribution plan worked out with the state associations to avoid duplication.
6. Organizations and individuals outside vocational and practical arts education will be charged six cents per copy for brochures purchased in quantities of 20 or more. Quantities of less than 20 will be charged 10 cents per copy.

Those requesting copies for distribution to others should remember that the brochures are intended for those who make or strongly influence local, state, and national policy for vocational and practical arts education: school board members, legislators, congressmen, school administrators, and other "influentials". Circulation among the members of the AVA is also desired; they should not hesitate to write for individual copies for their own use or copies to distribute to persons who have an important part in creating the climate in which vocational and practical arts education operates.

Presently, there are 20,000 copies of each of the new publications available. Ten thousand copies of the reprinted publication on distributive education and five thousand copies of the reprinted publications on industrial education and occupation distribution

Please turn to Page 27

YOUNG FARMERS

From Page 13

bers will recognize their major needs and plan a yearly program based on those needs.

Fred H. Wiegmann, Associate Professor of agricultural economics, Louisiana State University, writing recently in *Better Farming Methods,* had this to say about the type of instruction needed by farmers:

"Farmers have generally placed emphasis on knowledge in the various production fields—dairying, animal husbandry, field crops, etc.; in soils, fertilizers, insect control, mechanics and many other areas. Now, and increasingly in the years ahead, they will find it necessary to develop skill in farm business management. Agricultural leaders and agencies, both public and private, are slowly coming to recognize that this is an area in agricultural education that has been relatively neglected. Yet, in modern agriculture, it is management that offers real opportunities for solving the 'profit problem' on individual farms."

Some teachers feel that they do not know enough about farm management to teach young farmers. What is farm management? Farm management is making decisions. Too many of us feel if we teach farm management we must *tell* our students that they should grow 15 acres of corn or no corn, 100 hogs or no hogs, etc. *Instead, teaching farm management is considering all the available facts pertaining to a given subject and letting the individual farmer make the final decision.*

Instruction for an entire year might well be on soils, with a breakdown into units that could be made interesting and worth while. Such instruction could be carried through to the application step by each class member working out a land use and soil management plan for his farm.

Another plan might be to spend *an entire year* studying the maintenance, proper operation, and adjustment of farm machines. This is an area that needs much attention and will continue to be so in the future. There are many other areas facing our young farmers that are equally important—and probably more so—than those mentioned, such as farm forestry, planning a farm building layout, or planning a livestock program.

On-farm instruction for young farmers is important. They need it and can profit more from it than any other group in vocational agriculture. This group can benefit most because they are young enough to be receptive to new ideas, but yet old enough and influential enough to affect the decisions made on their home farms. We found in summarizing young farmer class reports that, of the 2,047 individuals enrolled, 824 were land owners and 662 were farming in partnership arrangements, making a total of 1,486 or over 70 percent, more or less, controlling the farm operation. This means that teachers of vocational agriculture have a golden opportunity when they include young farmer education in the total program.

Dr. H. M. Hamlin of the University of Illinois, a few years ago made this comment concerning our work with young farmers:

"The farm population of men over 14 years of age in a community is approximately 70 percent adult farmer operators, 20 percent young farmer operators, and 10 percent high school boys. If enrollment in the department is limited to the third group, only one-tenth is reached and this is the least influential tenth. The influence of the remaining 90 percent is usually sufficient to counteract much that the school can do with the 10 percent it reaches."

Probably, the question that is foremost in the minds of persons who are not conducting a young farmer program would be, "When will I find time in my busy schedule to visit and prepare lessons to teach a group of young farmers?" Every phase of our program has an important place, but it's a matter of which is most important.

Beginning teachers are urged to organize a class for young farmers. It is one of the best ways to become established in a community and gain the confidence of the people.

IS THE PENDULUM SWINGING TOO FAR?

Continued from Page 11

skills that are common to a variety of occupations."[4]

In his "first report to interested citizens," which he calls The American High School Today, the distinguished scholar, scientist, university president, member of the General Advisory Committee of the Atomic Energy Commission, and former U. S. High Commissioner of Germany, James B. Conant, makes twenty-one recommendations pertaining to American secondary schools. In recommendation seven he says in part, "Programs should be available for girls interested in developing skills in typing, stenography, the use of clerical machines, home economics, or a specialized branch of home economics which through further work in college might lead to the profession of dietitian. Distributive education should be available if the retail shops in the community can be persuaded to provide suitable openings. If the community is rural, vocational agriculture should be included. For boys, depending on the community, trade and industrial programs should be available."[5]

Space will not permit a discussion of critical importance of education to enhance the family unit as primary among values essential to the perpetuation of the heart of our culture. Unless there is a far-reaching plan to better prepare our girls to understand the sociological implications, and to function successfully as mothers and leaders of family living, our society may be headed for a *decline and fall* that would surpass all historical records of these recurring catastrophies of civilization.

The pendulum has swung too far! General school administrators, Boards of Education, and citizen groups must become aggressive in returning the emphasis in school programs to a position consistent with the basic principles that have been our guides for the last half century.

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[4] Thirty-sixth Yearbook, American Association of School Administrators, Washington, D. C., The High School in a Changing World, p. 364.

[5] Conant, James B., The American High School, a first report to interested citizens, pp. 51-52.

new books

Orthographic Projection Simplified, by Charles Quinlan, Jr., McKnight and McKnight Publishing Co., Bloomington, Ill., 1960, 88 pages, $1.00.

This is a beginning drawing workbook designed to teach the principles of orthographic projection. It includes some instruction and a number of problems for student work. The book's five sections are top views, right side views, dotted lines, three-view mechanical drawings, and how to use orthographic projection paper. Material in this book has been thoroughly tested and successfully used for the past seven years in loose leaf form in industrial training, vocational, and technical schools.

Accelerated Vocational Training for Unskilled and Semi-skilled Manpower, published by The Organisation for European Economic Cooperation, 1346 Connecticut Ave., Washington 6, D. C., 1960, 491 pages, $3.00.

The accelerated methods of vocational training for adult workers play an important role in the economic development of countries in the process of industrialization. In this OEEC publication eleven member countries give a description of their system of accelerated training from the points of view of organization, administration, financing, and pedagogical methods. The reports are completed by a summary report containing a comparative analysis of the different systems. Member countries analyzed are Austria, Belgium, Denmark, France, Germany, Greece, Italy, The Netherlands, Sweden, Turkey, and the United Kingdom.

So You Want to Go Into Industry, by Edward Hodnett, Harper Brothers, 49 E. 33rd St., New York 16, N. Y. 160 pages, $3.00. 1960.

Although more high school and college graduates enter industry today than any other career field, few know what their jobs look like in advance. This informative book tells the neophyte what he can expect from his job in industry and what will be expected of him.

AVA"s Business Education Editor, William Selden, has sent us a mimeographed report entitled *Guidance for Business Education*. It will not be published, but business educators may receive a copy by writing W. S. Selden, Department of Public Instruction, Box 911, Harrisburg, Pa.

The 15-page mimeograph is a revision of Chapter IV, Bulletin 271, *Business Education Manual* (Penna.), and deals with more specifics than does the overall manual. The suggestions in this supplement should serve as a great aid to business education and guidance departments.

Forging and Welding Study Guide, by Smith and Toothman, McKnight and McKnight Publishing Company, Bloomington, Ill., 1960, 144 pages, $1.80.

This workbook is made available for the first time for the textbook, *Forging and Welding*. The sheets, perforated for threering notebook, may be used as direct references, as self tests, or as testing devices by the instructor. This guide book helps students remember important details from the test as they answer the completion, true-false, and matching questions.

Photo-Offset Fundamentals, by John E. Cogoli, McKnight & McKnight Publishing Company, Bloomington, Illinois. 1960, 209 pages, $4.80.

This basic manual for the beginner in the field of photo-offset lithography, is designed to give a working knowledge of the offset printing method to the worker, student, teacher, apprentice, salesman, buyer and others interested in the field. Discussion of job planning and layout, composition, proofreading and preparing copy assure a good understanding of these steps. Photography, laying out, stripping and platemaking are thoroughly covered.

Industrial Arts Drafting, by John R. Walker and Edward J. Plevyak, The Goodheart-Willcox Co., Inc., Chicago, Illinois. 1960, 208 pages.

A textbook giving the fundamentals of mechanical drawing or drafting in a simple method designed for either junior or senior high school students. The instructional material is presented in such a manner that it may be used as a text for a six, nine, eighteen, or thirty-six weeks' course, depending on the teacher, his course of study, and the accomplishment level of his students.

Careers in Highway Traffic Safety, National Commission on Safety Education, National Education Association, 1201 16th St., N.W., Washington 6, D. C. 61 pages, $1.00. 1958.

The value of this book lies in the orderly answering of questions that students might ask of counselors in selecting a career in traffic safety.

Producing Farm Crops, by H. K. Wilson and A. C. Richard. The Interstate Printers and Publishers, Danville, Ill., 1960. 336 pages, $4.50.

The objective of this new book is to present to its readers what is known about the efficient growing of farm crops. It emphasizes the basic principles which, once understood and mastered, can be applied to individual situations.

Salesmanship Fundamentals, by John W. Ernest and George M. DaVall. Gregg Publishing Division, McGraw Hill Book Co., Inc., 330 W. 42nd St., New York 36, N. Y., 1959. 406 pages, $4.16.

To reflect the progressive changes in selling is the main purpose of this second edition, with strong emphasis on good human relations.

DEATHS

Eugene J. Robinson, formerly Supervisor of Industrial Arts for the Dayton, Ohio, schools, retiring in June, 1959, died suddenly on October 30, 1960. He taught several areas of Industrial Arts for twenty-four years in the city of Dayton, Ohio. He was Supervisor of Industrial Arts until his retirement in 1959.

Willis Charles Gorthy, world authority on the rehabilitation of the handicapped, died December 4, after a short illness at his home in Scarsdale, New York. Mr. Gorthy was widely known throughout the world for his pioneer work in the application of modern management methods to the establishment and operation of rehabilitation centers. He wrote and spoke frequently on rehabilitation matters throughout the United States and the world. Much of his attention was given to the improvement of working arrangements between governmental agencies and private rehabilitation facilities. His work in setting up a model arrangement between the New York State Division of Vocational Rehabilitation and the Institute for the Crippled and Disabled, of which he was Director, has resulted in a pattern which is being followed throughout the country.

WORK EXPERIENCE

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name at least six or seven different patterns for work experience. There may be another plan that is far superior to the one in use at the present time.

These are a few of the prerequisites which are important. Many others could be named. Several factors which are traditionally listed are not mentioned. Among these: students should be paid for their work; they should receive school credit for the work; they should have related subjects in the classroom. Are these prerequisites? For example, do we know that payment for work makes a difference in the educational value of the work? Whether this experience should come during the four years of high school is still another question that is unanswered. We need to develop our work experience programs on a sound educational base through giving attention to the prerequisites that are significant and meaningful.

Graduate demand high

TECHNICAL WRITING

A Full Curriculum Now Offered at Stout

WHAT IS TERMED "the fastest growing segment of American journalism—technical writing" is now being offered at Stout State College, Menomonie, Wis.

According to the administration of Stout, a distinct demand already exists for Stout graduates specifically trained to organize industrial or scientific facts and then to write and publish them. These graduates thus become "partners" with engineers or scientists, translating the theoretical concepts of the latter into terms understandable to technicians, military personnel and others who must actually fabricate or operate some new invention or direct some new procedure.

Describing Stout's reasons for entering this relatively new educational field, Dr. Verne C. Fryklund, president of Stout, points out:

"Industry and business are already aware of the need for persons of technical ability who can express their technical knowledge in writing. The availability of such writing also makes it possible for other people to continue learning after high school or even college graduation. Therefore, technically-trained writers now have almost unlimited opportunities for important positions in American industry, and Stout is preparing such writers."

Within the journalism offerings which, for over a decade, Stout has been authourized to offer, the college will make available these five curricula: 1) technical writing for home economics, 2) technical writing for industry, technical writing options to accompany Stout's 3) four-year and 4) five-year industrial technology programs, respectively, and 5) a revision of its present journalism minor. The curicula will provide students in technical writing with a blending of writing, printing and photography courses, in addition to their usual academic, elective and technical subjects. In brief, technical writers will register for the following sequences:

Women — first year: usual basic English courses; second year: elementary composition, elementary photography and journalism; third year: printing design, copy editing, and feature writing; fourth year: public relations and technical writing for home economics.

Men — first year: basic English courses and elementary composition; second year: printing design, copy editing, and journalism; third year: feature writing and elementary photography; and fourth year: public relations and technical writing for industry.

In addition to these classes, a student may also choose from among 17 elective courses in radio and television, other areas of printing, advanced photography, design, literature, history and social science, and various aspects of oral communication and group leadership.

The first group of coeds at Stout has already entered the technical writing curriculum, reports Dr. Fern Horn, Dean of the School of Home Economics. She notes, too, a number of excellent employment opportunities now existing for home economics who can write, especially those in business, food service, county extension, commercial demonstration, and teaching. Greatly in demand will be women who can handle publicity or produce brochures, advertisements, professional articles and material for radio or television.

"In the past two summers, the college has had requests for 27 graduates specializing in technical writing," declares Dr. John A. Parvis, Dean of Stout's School of Industrial Education. "Any man attending Stout who is well qualified in science, mathematics and technical subjects, and who then prepares himself as a technical writer, has a job—a good job— already waiting."

The first class of Stout men will formally enter the writing curriculum next September. However, a number of upperclassmen are at present enrolled "on their own" for courses now available.

A nation-wide report of the Department of Technical Journalism at Iowa State University reveals that starting salaries of beginning technical writers range from $4500 to $7000, depending upon a beginner's competence and the particular field of work which he enters. Security, working conditions, retirement plans and other fringe benefits also compare favorably, that report emphasizes.

The sequences in journalism and technical writing will be offered through the department of English at Stout State College. Miss Gertrude L. Callahan, chairman, and Dr. Thomas F. Fleming, professor of English and Journalism, will direct the editorial and writing aspects. Lloyd Whydotski, Department of Graphic Arts, will supervise work in layout and printing, assisted by members of his department.

Dr. David Barnard, head, and other members of Stout's audio-visual center are in charge of photographic offerings. Dr. Robert Rudiger and Wesley Sommers of the Stout faculty serve as advisers to all men in the industrial technology major.

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THIS IS RUSSIA

"All youths aged 15 to 16 are to be integrated into socially useful labor according to individual capability, and all education thereafter is to be carried out in conjunction with productive labor in the national economy."

—Pravda, December 25, 1958

A plane blade grinding attachment for the Delta belt and disc finishing machine has been introduced by Rockwell Manufacturing Company's Delta Power Tool Division. The attachment permits precision sharpening of plane blades, wood chisels, cold chisels, screw drivers, knives, and other cutting tools on the belt of this machine. A two-inch wide aluminum oxide belt, used instead of the standard four-inch belts for sanding and grinding, is supplied with the attachment.

PUBLIC INFORMATION

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have recently become available, but orders for a part of these were received in advance of reprinting.

1961 Plans of the Committee on Public Information. The major new project of the Committee on Public Information will be the preparation of a kit of materials useful in state and local programs, including specific steps that might be taken, suggestions as to how to take each step, and printed helps for telling the story of vocational and practical arts education. State workshops on public information will be promoted and help will be given by the Committee to regional groups wishing to train leaders for these workshops. No new brochures, other than the one mentioned earlier in this column, are contemplated unless additional funds become available.

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A 44-year career in education, 42 of them in vocational education, ended December 31 when Dr. R. E. Cammack retired from the post of Alabama State Director of Vocational Education.

The retired educator had been in his former post since 1945. He was state supervisor of vocational agriculture from 1921 to 1945. Prior to that time he served as a school teacher and farm demonstration agent.

Dr. Cammack was responsible for organizing the Alabama Association of the FFA as part of the national organization. He served as state advisor for 16 years.

The retired director served on many national committees and has been sought frequently as a consultant.

●

Enrollment in public elementary and secondary schools in the current year has reached 37.2 million, an increase of 1.2 million over last year, according to the NEA report, *Estimates of School Statistics, 1960-61*. Other statistics in the report includes this information: Elementary school enrollment is up 32.9 percent in the last ten years, but high school enrollment is up 76.6 percent. The school-age population (5 to 17 years) has been growing 2.5 times as fast as the general population. The instructional staff in the schools grew to 1,526,079 this year of whom 1,408,962 are classroom teachers. The average annual salary of the instructional staff this year is $5389, up 4.5 percent from last year. There are less than half as many school districts this year than there were ten years ago. Expenditures per pupil in daily attendance rose from $224 in 1950-51 to $390 this year.

●

Harry A. Tiemann of Denver retired November 30 after 48 years of service in the education field which included teaching in elementary, high school, college, and industry. His near half-century of service included duties in both public and private vocational education fields. A graduate of Stout Institute, Mr. Tiemann received his bachelors and masters degrees at Colorado State University. He is a former AVA Vice President (1932).

Mr. Tiemann retired from the Public Service Company of Colorado and is curently looking into the teacher training or consulting field to continue his active career.

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Give him his chance at America's opportunities. He needs a peaceful world to grow in. Every U. S. Savings Bond you buy helps assure peace by keeping our country strong.

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As a result of the interest expressed by state representatives at the National Conference of State Supervisors of programs under Title VIII of the National Defense Education Act in Kansas City last June, the Area Vocational Education Branch has planned a series of seven regional conferences in 1961. Designed for State and other personnel concerned with Title VIII programs, conferences are scheduled for Baltimore, February 27, 28, March 1; Atlanta, March 13-15; Springfield, Mass., March 27-29; Pittsburgh, April 10-12; Oklahoma City, April 17-19; Pocatello, Idaho, May 1-3; and Minneapolis, May 8-10.

Howard K. Hogan, Consultant, Employee-Employer Relations, Trade and Industrial Education Branch, participated in a meeting of the Educational Activities Committee of the American Welding Society at the Ohio State University's Department of Engineering on November 30, 1960. The American Welding Society is working on a manual of welding practices for public school welding programs.

Mary V. Marks, Program Specialist, Distributive Education Branch, while attending the AVA conference in Los Angeles, moderated a meeting of the planning committee for the national conference on Teacher Education in Distributive Education to be held in Chicago in June, 1961. An agenda was agreed upon which reflects the thinking of the nation's teacher educators in distributive education.

Representing the Vocational Division, Donovan Armstrong, Program Specialist, Distributive Education Branch, participated in the 15th annual conference of the National Council on Hotel, Restaurant and Institutional Education held at Cornell University, November 20-22. Mr. Armstrong addressed the conference on "The New Cooperative Program" and served as consultant on vocational education in other sessions.

Plans for the 1961 Southern Regional Conference on Trade and Industrial Education were developed in Roanoke, Virginia, November 14-16. Earl M. Bowler, assistant Director, Trade and Industrial Education Branch, coordinated the committee activity and represented the Branch at the meeting. The Conference will be held in Roanoke March 27-31.

James H. Pearson, Assistant Commissioner for Vocational Education, presided at a joint meeting of the Committee on Specialized Personnel, Office of Civil Defense Mobilization and the Area Vocational Education Branch held in Washington, D. C. on November 18. Walter M. Arnold, Frank J. Coyle, Arthur B. Wrigley, Maurice W. Roney and Clarence E. Peterson reviewed the progress of Title VIII of the National Defense Education Act and outlined trends in the states during the first two years of operation. The impact and future implications of Title VIII were discussed.

H. N. Hunsicker and H. F. Duis, Agricultural Education Branch, conducted a two-day workshop in late October for supervisors and teacher trainers from the States of Ohio, Kentucky, Indiana, and West Virginia. The program centered on discussions and demonstrations of techniques found effective in supervision. The meeting was held at the State FFA-FHA Camp, Ripley, West Virginia.

"Identifying Essential Content for the Practical Nursing Curriculum" was the subject discussed by Miss Helen K. Powers, Program Specialist for Practical Nurse Education, on November 16, at the annual meeting of the Massachusetts State League for Nursing. She reviewed the activities of the conference groups in the seven Intraregional Conferences on Curriculum Development in Practical Nurse Education, conducted jointly by the U. S. Office of Education and the National League for Nursing in the spring of 1960. The process of selecting essential learnings for practical nursing students in clinical nursing was highlighted.

To explore possibilities for further training for supervisory and managerial personnel in the hotel industry, John A. Beaumont, Director, Distributive Education Branch, conferred with representatives of the American Hotel Association in New York on November 17. Plans were initiated to provide a long-range curriculum in hotel training through the distributive education program.

"Trends in Industrial Education" was the subject of an address presented by Merle E. Strong, Specialist, Teacher Training and Service Studies, Trade and Industrial Education Branch, at a dinner meeting of the Northern Virginia Industrial Education Association on December 14 in Alexandria. Dr. Strong emphasized the changing nature and need of the program, teacher preparation, and the curriculum.

At the open house of the United Association of Journeymen and Apprentices of the Plumbing and Pipefitting Industry dedicating its five-story training school in Washington, D. C. on November 16, the Division of Vocational Education was represented by John P. Walsh, Sam W. King, Harold J. Rosengren, Merle E. Strong, Howard K. Hogan, and Ward P. Beard.

Mildred Reel, Assistant National Adviser, Future Homemakers of America, worked with the state home economics education supervisory staff, homemaking teachers, and FHA members in New Mexico from November 28 to December 3 on experience in Future Homemakers of America which contribute to the achievement of homemaking education goals.

Walter M. Arnold, Director, and Program Specialists, Arthur B. Wrigley, Maurice W. Roney, and Alexander C. Ducat, Area Vocational Education Branch conferred with representatives of the Philco Corporation in Philadelphia on November 15-16. Discussions on technician training programs were augmented by observing classroom procedures and technicians working on computers and automated production lines.

M. C. Gaar, program planning specialist in agricultural education for the Southern region, addressed the Oklahoma Adult Education Association at a luncheon meeting November 4. Speaking on "Trends in Vocational Education," Dr. Gaar discussed changing conditions facing farmers, homemakers, and others, and pointed out the need for adult education programs to give mature citizens the background for solving their economic and social problems.

Harold J. Rosengren, Program Specialist, Trade and Industrial Education Branch, served as leader of a recent conference held in Chicago to develop a format for the revision of *Three Dimensional Teaching Aids for Trade and Industrial Instruction* published by the Office of Education in 1953. The Central Region's committee was assigned to prepare the manuscript for this publication.

During field services to Pennsylvania, Delaware, and West Virginia, George Sanders, Program Specialist, Distributive Education Branch, conferred with members of the North Atlantic Region conference planning committee. A theme, "The Pursuit of Excellence in Distributive Education" as well as topics for the agenda were agreed upon for the conference to be held in May 1961 in New York City.

Are tomorrow's skilled industrial workers being provided with the type of teachers they should have? Are future trade teachers being given adequate training? These points are raised in a new publication, *Teacher Competencies in Trade and Industrial Education*, released by the U. S. Office of Education. The author is John P. Walsh, Director of Trade and Industrial Education Branch, Division of Vocational Education.

The Office of Education questioned 510 successful teachers of trade and industrial subjects, 228 State and local supervisors, and 120 trade and industrial teacher educators in all states and territories. Findings of the study revealed teachers of trade and industrial subjects need many distinctive skills and abilities in addition to those required by regular classroom teachers. Successful teachers and teacher educators ranked high the importance of direct professional experience in the teacher-preparation program.

Local administrators, state and local supervisors, and teacher educators questioned expressed dissatisfaction with the level of preparation of teachers in development of instructional materials, testing, and orientation to services of community organizations.

The bulletin may be obtained from the Superintendent of Documents, U. S. Government Printing Office, Washington 25, D. C. The cost is 30 cents.